IN THE SPECIFICATION

Please substitute the following paragraph for the paragraph at page 6, lines 11-34.

Referring now to Figures 5-8, catalytic converter designs for attachment to exhaust manifolds are shown. An exhaust manifold 140, as shown in a front view in Figure 5 and a side view in Figure 6, is designed to collect exhaust gases exiting the cylinders of an engine. Exhaust manifold 140 comprises a collection of pipes or runners, whose number corresponds with the number of cylinders in the engine, which upon exiting the engine compartment, are bent and directed to a single collector body 144 leading to a catalytic converter 142, and then to an exhaust pipe. An exhaust manifold collector body 144 having a plurality of pipes or runners 148 can place exhaust manifold 140 in contact with catalytic converter 142 creates a manifold/converter. Catalytic converter 142, as shown in a partial cross-sectional view in Figure 7 and an exploded partial cross-sectional view in Figure 8, can include mat protection ring 90. Mat protection ring 90 can be inserted into collector body 144 to penetrate the compressed mat support material 44. As illustrated in Figure 8, mat protection ring 90 at one end penetrates mat support material 44 a certain distance, typically 2-8 mm, indicated by the letter "d". Referring now to Figure 8, mat protection ring 90 and shell 146 can be locked into position within exhaust manifold collector body 144 to form a gas tight seal by a casting operation of the exhaust manifold ~~140~~, for example, suspending aligning mat protection ring 90 and shell 146 in a mold for casting the exhaust manifold ~~140~~. Exhaust manifold collector body 144 and shell 146 can preferably be joined together at a juncture, indicated by the letter "A" in Figure 8, without adding a weld flange to the collector body 144. The casting can preferably seal exhaust manifold collector body 144 and shell 146 together to provide a gas tight seal.

Please substitute the following paragraph for the paragraph at page 7, lines 1-20.

In an exemplary embodiment depicted in Figures 9 and 10, an exhaust manifold 140 is shown having a shell 146 and mat protection ring 90 inserted into exhaust manifold collector body 144 during the manufacture and casting of exhaust manifold 140. During the casting of an exhaust manifold, catalytic converter components made of wrought material are inserted into a mold for an exhaust manifold so that the converter components are cast into the manifold. The catalytic converter components may be in subassembly form (e.g., shell ~~tube~~ 146 with a mat protection ring ~~an endring~~ 90, inner/outer endcone, endplate, etc. . . .) or completed converter basic assembly. After the converter components are cast into the manifold, conventional converter manufacturing operations (e.g., stuffing, welding, spinforming, etc. . . .) can be used. This method of manufacture eliminates the costly manifold to converter weld, and the high hardness, low ductility microstructure that is present in the weld heat affected zone of the cast iron manifold. Furthermore, by using converter components made from a material such as 409 stainless steel as opposed to extending the iron casting, the improved strength and corrosion resistance of the 409 stainless steel are gained without making the whole casting from 409 stainless steel. The wrought converter components, typically having a 1-2 mm wall thickness, also reduce the mass of the manifold/converter compared to thin wall castings having a 3-4 mm thickness.

Please substitute the following paragraph for the paragraph at page 7, lines 21-32.

Figure 10 shows an exhaust manifold/converter 150 with a cast-in shell ~~tube~~ 146 and a mat protection ring ~~an endring~~ 90. It should be noted that retention features 152 may be desired on the inserted ends of the converter components coupled exhaust manifold collector body 144 when there is not a metallurgical bond between the converter component inserted ends and the cast exhaust manifold 140. Retention features 152 may be features such as bumps, flares, grooves and any combination comprising at least one of the forgoing on the insert(s) that interlock with the casting. The mat protection ring ~~endring~~ 90 in Figure 10 has ~~a~~an retention feature 152 (angular flare) ~~152~~ to aid in the prevention of ~~endring~~ mat protection ring 90 from pulling out of the manifold collector body144. Likewise, shell ~~tube~~ 146 has a groove 156 at one end that is received and interlocked when casting the manifold collector body 144 with the grooved end of shell ~~tube~~ 146 inserted.

Please substitute the following paragraph for the paragraph at page 8, lines 4-16.

Insulation material comprises materials such as fiberglass, ceramic mats, and/or mica based materials, including combinations comprising at least one of the foregoing, and the like. When inner endcone 160, outer endcone 162, insulation material (not shown), and the mat support material/catalyst substrate subassembly ~~42~~ are assembled together, insulation material can be concentrically disposed within the air chamber and between the interior surface of outer endcone 162 and the exterior surface of inner endcone 160. Insulation material can further decrease the amount of heat transferred to outer endcone 162 from catalyst substrate ~~42~~ and prevent deformation of outer endcone 162. It should be noted that the temperatures of the casting operation may restrict the use of endcone insulation material, however, an air gap between the endcones provides more of a thermal barrier than a solid casting of a manifold/converter assembly 150 while reducing the mass.

Please substitute the following paragraph for the abstract.

A catalytic converter comprises an exhaust manifold comprising a manifold wall; a catalytic converter shell, wherein a portion of the catalytic converter shell is disposed within the manifold wall; and a catalyst substrate disposed in the catalytic converter shell.

~~A catalytic converter subassembly having at least one component inserted during the manufacture of a cast exhaust manifold, thereby eliminating a costly and undesirable manifold to converter weld.~~

~~The method and converter subassembly comprise a converter shell for housing a catalyst substrate adapted to be securely attached to an exhaust manifold during manufacture of the manifold to eliminate an undesirable weld between the manifold and converter.~~